

WHAT IS CLAIMED IS:

1. A gas turbine engine comprising:
a combustor;
a compressor for supplying air to said combustor;
a turbine driven by gas from said combustor;
an air flow control system installed in an air intake path for introducing air to said compressor, said air intake path being located outside and upstream with respect to said compressor; and
intake air flow control means for controlling an intake air flow by operating said air flow control system according to a load of said engine so as to maintain an air-to-fuel ratio in said combustor within a proper range suited to suppress a discharge of an atmospheric pollutant.
2. A gas turbine engine according to Claim 1, further comprising an air intake duct connected to an inlet of said compressor and forming said air intake path, said air flow control system being installed in said air intake duct.
3. A gas turbine engine according to Claim 1, wherein said air flow control system includes a plurality of variable static vanes arranged in a row.
4. A gas turbine engine according to Claim 3, wherein said air flow control system further includes revolving shafts attached to said plurality of variable static vanes, respectively, and system driving means for revolving said revolving shafts so as to drive said plurality of variable static vanes.
5. A gas turbine engine according to Claim 4, wherein said system driving means revolves said revolving shaft synchronously so as to drive said plurality of variable static vanes synchronously.
6. A gas turbine engine according to Claim 5, wherein said system driving means includes follower pinions attached to ends of said revolving shafts, respectively, and a rack meshed with said follower pinions so as to revolve said follower pinions synchronously by a back and forth movement thereof.

7. A gas turbine engine according to Claim 3, wherein said air intake path can be totally closed by said plurality of variable static vanes.

8. A gas turbine engine according to Claim 1, wherein said combustor is a catalytic combustor having a built-in catalyst.

9. A gas turbine engine according to Claim 8, wherein said intake air flow control means operates said air flow control system so as to maintain an exit temperature of said catalytic combustor within a predetermined range.

10. A gas turbine engine according to Claim 1, wherein said combustor is a premixing combustor having a premixing chamber in which said air-to-fuel ratio is a premixing ratio.

11. A gas turbine engine according to Claim 1, wherein said engine is operated at a fixed number of revolutions.

12. A gas turbine engine according to Claim 1, wherein said engine is operated so that its number of revolutions is changed depending on said load of said engine load.

13. A gas turbine engine according to Claim 1, wherein said combustor is a single can type.